

REMARKS/ARGUMENTS

Summary of the Amendments

The specification is amended at paragraph [0022] to correct two misspellings.

Claims 1, 4, 7-10, 17, 20-23, and 26-28 are amended. The basis for and substance of each of the amendments is discussed in detail hereinbelow. Claims 2-3, 11-16, 18-19, 24-25, and 29-34 are canceled. Upon entry of the amendments, claims 1, 4-10, 17, 20-23, and 26-28 will remain in the application.

Rejection under 35 USC §112 (Claims 1-34)

The various rejections of claims 1-34 under §112, 2nd ¶, are addressed in the order made by the Examiner:

- i) Claim 1 has been amended to recite “or a pharmaceutically acceptable salt thereof,” as suggested by the Examiner. The Examiner is thanked for his helpful suggestion.
- ii) See above.
- iii) Claim 1 has been amended to specify that cycloalkyl means cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclodecyl, cyclododecyl, or adamantyl. Basis for the amendment is found in the specification at paragraph [0018].
- iv) Claim 1 has been amended to specify that “heteroaryl” means a 4 to 7 membered monocyclic, 7 to 11 membered bicyclic, or 10 to 15 membered tricyclic aryl ring system wherein each heteroaryl ring has 1, 2 or 3 heteroatoms selected from N, O and S, where the N and S optionally may be oxidized and the N optionally may be quaternized. Basis for the amendment is found in the specification at paragraph [0020].
- v) Claim 1 has been amended to specify that “heterocyclo” means a 4 to 7 membered monocyclic, 7 to 11 membered bicyclic, or 10 to 15 membered tricyclic ring system having at least one heteroatom in at least one carbon atom-containing ring,

wherein each heterocyclic ring has 1, 2 or 3 heteroatoms selected from N, O and S, where the N and S optionally may be oxidized and the N optionally may be quaternized. Basis for the amendment is found in the specification at paragraph [0020].

- vi) Claim 1 has been amended to specify that the substituent of the C₁-C₈ alkyl group is heteroaryl, aryl, halo, trifluoromethoxy, trifluoromethyl, hydroxy, alkoxy, cycloalkyloxy, heterocycloxy, alkanoyl, alkanoyloxy, amino, alkylamino, quaternary ammonium, aralkylamino, cycloalkylamino, heterocycloamino, dialkylamino, alkanoylamino, thio, alkylthio, cycloalkylthio, heterocyclothio, ureido, nitro, cyano, carboxy, carboxylalkyl, carbamyl, alkoxycarbonyl, alkylthiono, arylthiono, alkylsulfonyl, sulfonamido, and aryloxy. Basis for the amendment is found in original claim 6 and/or in the specification at paragraph [0022].¹
- vii) Mooted in view of the amendments to claim 1.
- viii) Claims 1 and 9 have been amended to specify that, where R² and R³ combine with the nitrogen to which they are attached to form a ring, the ring is an azetidiny ring. Basis for the amendment is found in Table I, compound I-a.
- ix) Mooted in view of the cancellation of claims 11-12.

In summary, it is respectfully submitted that each of the above rejections i) through ix) is mooted or overcome. Reconsideration and withdrawal of each of them is respectfully requested.

Rejection under 35 USC §112 (Claims 29-34)

The rejection of claims 29-34 under §112 is mooted in view of their cancellation.

Rejection under 35 USC §101 (Claims 29-34)

The rejection of claims 29-34 under §101 is mooted in view of their cancellation.

¹ The listing of permissible substituents in paragraph [0022] also includes alkyl, alkenyl, and alkynyl, but these have been omitted from the listing in claim 1, as semantically inappropriate where the group being substituted is an alkyl group.

Rejection under 35 USC §112 (Claims 17, 18, 23, 24)

Claims 17-18 and 23-24 stand rejected under §112, 1st ¶, as non-enabled. Applicants note that dependent claims 19 and 25 have not been so rejected by the Examiner and have amended claims 17 and 23 to specify the subject matter of claims 19 and 25, respectively (breast cancer, lung cancer, ovarian cancer, and leukemia). Accordingly, it is submitted that these rejections are overcome. Reconsideration and withdrawal of this rejection is respectfully requested.²

Rejection under 35 USC §103 (Welch *et al.*)

Claims 1-3, 11-13, 17-19, and 23-25 stand rejected under §103 as obvious over Welch *et al.*, US 6,015,659 (“Welch”). Applicants note that the Examiner has not rejected claims 4 and 7-9 over Welch and have accordingly amended claim 1 to specify the features of claims 4, 7, 8, or 9.³ As claim 1 now specifies the subject matter of allowable dependent claims, it and its dependent claims are allowable over Welch. Reconsideration and withdrawal of the rejection over Welch is respectfully requested.

Rejection under 35 USC §103 (Whitesell *et al.*)

Claims 1-3, 11-13, 17-19, and 23-25 stand rejected under §103 as obvious over Whitesell *et al.* (WO 94/08578) (“Whitesell”). It is submitted that this rejection is overcome in view of the amendments to claim 1, for the same reasons as stated in respect of the Welch rejection, as discussed above. Reconsideration and withdrawal of the rejection over Whitesell is respectfully requested.

² Claims 18-19 and 24-25 are canceled as redundant in view of these amendments and the dependencies of claims 20-22 and 26-28 are amended to reflect the cancellation of claims 19 and 25, respectively.

³ In view of these amendments, claims 2-3 have been cancelled and “housekeeping” amendments have been made to claims 7-10.

Double Patenting Rejection

The double patenting rejection of instant claims 14-16 over the respective claims 1 of sibling applications nos. 10/826,445, 10/826,446, and 10/826,447 is overcome in view of the cancellation of the instant claims 14-16.

Conclusion

In conclusion, it is submitted that this application is in condition for allowance. A prompt and favorable action is earnestly solicited.

Respectfully submitted,

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Date

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